

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

Charles D. Baker Governor

Karyn E. Polito Lieutenant Governor Matthew A. Beaton Secretary

Martin Suuberg Commissioner

May 21, 2018

Eric Wortman Acting Manager USEPA Region 1 5 Post Office Square (OEP05-2) Boston, Massachusetts 02109

Re: Administrative Amendment FINAL OPERATING PERMIT Appl. # WE-13-020; Trans. # X255557

Dear Mr. Wortman:

In accordance with 310 CMR 7.00 - APPENDIX C(8) of the Massachusetts Air Pollution Control Regulations ("the Regulations"), the Department of Environmental Protection ("MassDEP") is forwarding to EPA the attached *Administrative Amendment* to the Final Operating Permit for Tennessee Gas Pipeline Co., LLC located at 1615 Suffield Street in Agawam, Massachusetts.

The attached Administrative Amendment to the Final Operating Permit consists of a <u>change in the</u> <u>responsible official</u>.

Should you have any questions concerning this *Administrative Amendment* to the Final Operating Permit, please contact Cortney Danneker at (413) 755-2234.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Marc Simpson

Air Quality Permit Chief

Western Region

ecc: Peter Czapienski, MassDEP WERO Yi Tian, MassDEP, Boston Marc Wolman, MassDEP Boston



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# AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("Department" or "MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

#### **ISSUED TO ["the Permittee"]:**

Tennessee Gas Pipeline Co., LLC 1001 Louisiana Street, Room 1446A Houston, TX 77002

#### **FACILITY LOCATION:**

Tennessee Gas Pipeline Co., LLC Station 261 1615 Suffield Street Agawam, MA 01001

#### **NATURE OF BUSINESS:**

Natural Gas Transmission

#### **RESPONSIBLE OFFICIAL:**

Name: Ronald S. Bessette Title: Vice President-Operations

Name: Tom Burgett

Title: Director -Operations Name: Thomas C. Dender

Title: Vice President - Operations

#### **INFORMATION RELIED UPON:**

Application No. WE-13-020 Transmittal No. X255557 **Appl. WE-18-009; Trans. #X280659** (Admin. Amend: Change Responsible Official

#### **FACILITY IDENTIFYING NUMBERS:**

AQ ID: 0420005 FMF FAC NO.: 133246 FMF RO NO.: 50004

Standard Industrial Classification (SIC): 4922 North American Industrial Classification

**System (NAICS):** 486210

#### **FACILITY CONTACT PERSON:**

Name: David J. Carroll Title: Area Manager

Phone: (413) 786-1933 x-2022

#### This Operating Permit shall expire on April 16, 2019.

For the Department of Environmental Protection

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Michael Gorski
Regional Director
Department of Environmental Protection

5/21/18		
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#### SPECIAL CONDITIONS FOR OPERATING PERMIT

#### 1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this Permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this Permit.

#### A. DESCRIPTION OF FACILITY AND OPERATIONS

Tennessee Gas Pipeline Co., LLC submitted a Title V Operating Permit Renewal Application on June 7, 2013.

Tennessee Gas Pipeline owns and operates Compressor Station 261 (CS 261) located at 1615 Suffield Street in Agawam, Massachusetts. CS 261 is a natural gas transmission facility serving pipeline natural gas markets in the Northeast Region. The facility is staffed for a single eight-hour daytime shift. Operation of the station is remotely controlled 24 hours per day from a control facility in Texas.

CS 261 includes four (4) natural gas-fired turbine driven compressors. All four compressors are driven by different turbines which consist of a 54.8 million Btu per hour Solar Centaur H turbine (Emission Unit #1, constructed 1991), a 16.46 million Btu per hour Solar T-1001 turbine (Emission Unit #2, constructed 1965), a 51.4 million Btu per hour Solar Centaur T-4500 turbine (Emission Unit #3, replaced an identical Solar Centaur T-4500 turbine on January 6, 1996) and a 59.84 million Btu per hour Solar Centaur 50 turbine (Emission Unit #4, constructed 2000). Emission Unit #1, #3 and #4 are equipped with low NOx combustors (SoLoNOx). Emission Unit #4 was later retrofitted with Augmented Backside Cooling with Thermal Barrier Control (ABC/TBC) in 2001 which is also a type of SoLo NOx technology. The turbines operate in a simple cycle (no heat recovery) compressing the natural gas and then discharging it to the transmission system at operating pressure. Depending upon pipeline conditions, the compressors may operate simultaneously, independently, or not at all.

Emission Unit #1 and #3 were approved by Plan Approval #1-X-91-006 dated July 26, 1991. Emission Unit #3 had originally been approved by Plan Approval 1-X-89-035 issued October 2, 1989, but was included in Plan Approval #1-X-91-006 since it was determined to be part of the same project. On January 6, 1996, the Solar Centaur T-4500 (Emission Unit #3) was replaced with an identical Solar Centaur T-4500. The replacement turbine was determined to be exempt from plan approval and continued to comply with the requirements established for Emission Unit #3 in Plan Approval #1-X-91-006. Emission Unit #4 was approved by Plan Approval #1-P-99-027 dated July 18, 2000. Emission Unit #2 is exempt from the plan approval requirements of 310 CMR 7.02 since it was constructed at the facility in 1965. Plan Approval #1-O-06-039, dated December 13, 2006, approved the modification of emission limits for Emission Unit #1, #3 and #4 during operation of the turbines at temperatures below 0 °F.

Ancillary air contaminant sources at the facility include a 2.2 million Btu per hour natural gas-fired Waukesha C10263 emergency stationary reciprocating internal combustion engine (RICE), a 0.5 million

Btu per hour #2 fuel oil-fired Waukesha 135DKU emergency stationary RICE and other exempt activities.

Emission Unit #1, #3 and #4 are subject to 40 CFR Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). The nitrogen oxide emission limits established as best available control technology for Emission Unit #1, #3 and #4 are more stringent than the NOx emission limits contained in Subpart GG. Emission Unit #2 is not subject to Subpart GG since it was constructed prior to October 3, 1977.

The facility, as currently equipped, is an area source of hazardous air pollutant (HAP) emissions since the facility-wide total and individual HAP potential to emit are less than the major source thresholds of 25 tons per year and 10 tons per year, respectively.

The natural gas-fired Waukesha C10263 emergency stationary RICE and the #2 fuel oil-fired Waukesha 135 DKU emergency stationary RICE are subject to the National Emission Standards for Hazardous Air Pollutants( NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63 Subpart ZZZZ since they are located at an area source for HAPs. The Waukesha C10263 RICE and the Waukesha 135 DKU RICE have been included in the operating permit as Emission Unit #5 and #6, respectively. According to Subpart ZZZZ, Emission Unit #5 and #6 are defined as an existing stationary spark ignition engine and an existing compression ignition engine since they were installed before June 12, 2006 (both were installed in 1991). Emission Unit #5 and #6 must comply with the applicable requirements by no later than October 19, 2013 and May 3, 2013, respectively. The applicable requirements from Subpart ZZZZ have been included in this operating permit.

The facility is considered to be a major source since it has the potential to emit greater than 50 tons per year of nitrogen oxides (NOx). Therefore the facility is subject to the Operating Permit and Compliance Program pursuant to 310 CMR 7.00: Appendix C(2).

It was previously determined during the review of Operating Permit #1-O-07-044, issued June 1, 2009, that the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 do not apply since none of the emission units at the facility satisfy the required criteria specified in 40 CFR 64.2(a). More specifically, none of the individual emission units have the potential to emit in excess of the major source thresholds and do not use a control device to achieve compliance with any emission limitation or standard.

The facility is a "major stationary source" pursuant to the Emission Offsets and Nonattainment Review regulations of 310 CMR 7.00: Appendix A because the facility has the potential to emit more than 50 tons per year of NOx.

Massachusetts promulgated the 310 CMR 7.71: Reporting of Greenhouse Gas Emissions regulations on June 26, 2009. Pursuant to 310 CMR 7.71(3)(a)1., the facility is subject to the applicable requirements of this regulation which have been included in this operating permit.

# 2. <u>EMISSION UNIT IDENTIFICATION</u>

The following emission units (Table 1) are subject to and regulated by this Operating Permit:

	Table 1				
Emission Unit (EU#)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)		
EU 1	Solar Centaur H natural gas-fired turbine	54.8 million Btu per hour at 32 °F	Low NOx combustors		
EU 2	Solar Saturn T-1001 natural gas- fired turbine	16.46 million Btu per hour at 32 °F	None		
EU 3	Solar Centaur T-4500 natural gas- fired turbine	51.4 million Btu per hour at 32 °F	Low NOx combustors		
EU 4	Solar Centaur-50 natural gas-fired turbine	59.84 million Btu per hour at 32 °F	Augmented Backside cooling with Thermal Barrier Control (ABC/TBC)		
EU 5	Waukesha C10263 natural gas-fired emergency stationary reciprocating internal combustion engine	2.2 million Btu per hour	None		
EU 6	Waukesha 135DKU #2 fuel oil-fired emergency stationary reciprocating internal combustion engine	0.5 million Btu per hour	None		

# 3. <u>IDENTIFICATION OF EXEMPT ACTIVITIES</u>

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

Table	2
Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the Permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00:Appendix C(5)(h)

# 4. <u>APPLICABLE REQUIREMENTS</u>

#### A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the limits/restrictions as contained in Table 3 below:

	Table 3a				
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards(2,3)	Applicable Regulation and/or Approval No
EU 1 Natural Gas SO <sub>2</sub>	$SO_2$	The Permittee shall not operate each unit more than 300 hours per twelve month rolling total during extreme conditions. (3)	$\leq$ 150 ppmvd @ 15% $O_2$ or maximum fuel sulfur content of 0.8% by weight	40 CFR Part 60 §60.333	
		PM <sup>(1)</sup>	During extreme conditions the Permittee shall comply with the conditions of Table 8(1).	≤ 0.10 lb/MMBtu	MassDEP Approval # 1-X-91-006 (dated 7/26/91)
		NO <sub>x</sub>		≤ 42 ppmvd @15% O <sub>2</sub>	MassDEP Approval # 1-X-91-006 (dated 7/26/91) MassDEP Approval # 1-O-06-039 (dated 12/13/06)
		Smoke		No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No. 2 of the Chart	Regulation 310 CMR 7.06(1)(a)
		Opacity	_	$\leq$ 20%, except 20 to $\leq$ 40% for $\leq$ 2 minutes during any one hour	Regulation 310 CMR 7.06(1)(b)
EU 2	Natural Gas	Smoke	None	≤ No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No. 2 of the Chart	Regulation 310 CMR 7.06(1)(a)
		Opacity		$\leq$ 20%, except 20 to $\leq$ 40% for $\leq$ 2 minutes during any one hour	Regulation 310 CMR 7.06(1)(b)

			Table	e 3b	
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards(2,3)	Applicable Regulation and/or Approval No
EU 3	Natural Gas	SO <sub>2</sub>	The Permittee shall not operate each unit more than 300 hours per twelve month rolling total during extreme conditions. (3)	$\leq$ 150 ppmvd @ 15% $O_2$ or maximum fuel  Total sulfur content shall not exceed 0.8% by weight (8000 ppmw).	40 CFR Part 60 §60.333
		PM <sup>(1)</sup>	During extreme conditions the	≤ 0.10 lb/MMBtu	MassDEP Approval # 1-X-91-006 (dated 7/26/91)
		NO <sub>x</sub>	Permittee shall comply with the conditions of Table 8(1). (3)	≤ 42 ppmvd @ 15% O <sub>2</sub>	MassDEP Approval #1-X-91-006 (dated 7/26/91) MassDEP Approval # 1-O-06-039 (dated 12/13/06)
		Smoke		≤ No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No. 2 of the Chart	Regulation 310 CMR 7.06(1)(a)
		Opacity		$\leq$ 20%, except 20 to $\leq$ 40% for $\leq$ 2 minutes during any one hour	Regulation 310 CMR 7.06(1)(b)
EU 4	Natural Gas	$SO_2$	TGP shall combust only natural gas in EU 4, per DEP Approval #1-P-99-027 (dated 7/18/00)  The Permittee shall not operate each unit more than 300 hours per twelve month rolling total during extreme conditions. (3)	$\leq$ 150 ppmvd @ 15% $O_2$ or maximum ruel sulfur content of 0.8% by weight	40 CFR Part 60 \$60.333 MassDEP Approval #1-P-99-027 (dated 7/18/00)
		PM <sup>(1)</sup>	During extreme conditions the Permittee shall comply with the conditions of Table 8(1). (3)	≤ 0.02 lb/MMBtu ≤ 1.2 lb/hr ≤ 0.446 ton/ calendar month ≤ 4.96 ton/rolling 12-month period	MassDEP Approval #1-P-99-027 (dated 7/18/00)

	Table 3c				
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards(2,3)	Applicable Regulation and/or Approval No
EU 4	Natural Gas	NO <sub>x</sub>		$\leq$ 15 ppmvd @ 15% $O_2$ $\leq$ 3.3 lb/hr $\leq$ 1.23 ton/calendar month $\leq$ 13.6 tpy	MassDEP Approval #1-P-99-027 (dated 7/18/00) MassDEP Approval # 1-O-06-039 (dated 12/13/06)
		СО		≤ 10 ppmvd @ 15% O <sub>2</sub> and ISO conditions	MassDEP Approval #1-P-99-027 (dated 7/18/00)
				≤ 1.3 lb/hr ≤ 0.48 ton/ calendar month ≤ 5.5 ton/rolling 12-month period	MassDEP Approval # 1-O-06-039 (dated 12/13/06)
		Smoke		≤ No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No. 2 of the Chart	Regulation 310 CMR 7.06(1)(a)
		Opacity		≤ 10%	MassDEP Approval #1-P-99-027 (dated 7/18/00)
		VOC		< 0.03 lb/MMBtu < 1.91 lb/hr ≤ 0.71 ton/ calendar month ≤ 7.89 ton/rolling 12-month period	MassDEP Approval #1-P-99-027 (dated 7/18/00) MassDEP Approval # 1-O-06-039 (dated 12/13/06)
EU 5 and 6	Natural Gas (EU 5)		See Section 5. Special Terms	s and Conditions, Table 8.	40 CFR Part 63, Subpart ZZZZ
	#2 Fuel Oil (EU 6)	Smoke	None	≤ No. 1 of "the Chart" no more than 6 minutes during any one hour, no time to exceed No. 2 of "the Chart"	Regulation 310 CMR 7.06(1)(a)
		Opacity		$\leq$ 20%, except 20 to $\leq$ 40% for $\leq$ 2 minutes during any one hour	Regulation 310 CMR 7.06(1)(b)

			Table	e 3d	
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards(2,3)	Applicable Regulation and/or Approval No
EU 6	#2 Fuel Oil	Sulfur in #2 fuel oil	None	≤ 0.17 lb/MMBtu (≈0.3% sulfur by weight) #2 oil prior to July 1, 2014 ≤0.05% sulfur by weight – July 1, 2014 through June 30, 2018  ≤0.0015% sulfur by weight – On and after July 1, 2018	310 CMR 7.05(1)(a)1. Table 1
Facility- wide	#2 Fuel Oil Natural Gas	Greenhouse gas <sup>5</sup>	None	N/A	Regulation 310 CMR 7.71 (state only)

#### Table 3 Notes:

 $NO_x = Nitrogen Oxides$ 

CO = Carbon Monoxide

VOC = Volatile Organic Compounds

 $SO_2 = Sulfur Dioxide$ 

PM = Total Particulate Matter

lbs/MMBtu = pounds per Million British thermal units

lbs/hr = pounds per hour

ppmvd @ 15% O2 = parts per million by volume dry, corrected to 15 percent oxygen

 $\leq$  = less than or equal to

% = percent

N/A = Not Applicable

tpy = ton per year

ISO = International Organization for Standardization

#### *Table 3 Foot Notes:*

- (1) Particulate matter as measured according to the applicable procedures specified in 40 CFR Part 60 Appendix A, Method 5.
- (2) For EUs 1, 3 and 4, typical conditions are defined as ambient temperatures at or above 0°F (-18°C).
- (3) Extreme conditions are defined as ambient temperature below 0°F (-18°C).
- (4) Standard ISO conditions are 288 K (59<sup>0</sup>F), 60% relative humidity and 101.3 kilopascals (1atm) atmospheric pressure.
- (5) <u>Greenhouse Gas</u> means any chemical or physical substance that is emitted into the air and that the department may reasonably anticipate will cause or contribute to climate change including, but not limited to, CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

### B. <u>COMPLIANCE DEMONSTRATION</u>

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10) and applicable requirements contained in Table 3:

	Table 4a			
EU#	Monitoring And Testing Requirements			
1 3 4	1. The Permittee shall demonstrate that the fuel burned meets the definition of natural gas in 40 CFR § 60.331(u) in accordance with 40 CFR § 60.334 (h)(3).			
4	2. In accordance with MassDEP Approval No. 1-P-99-027, comply with the lb/hr, lb/MMBtu, and ppmvd emission limitations set forth in Table 3, which shall be determined based on one-hour averages. All applicable emission limitations are referenced to 15 percent oxygen and ISO conditions.			
5	3. In accordance with 40 CFR 63.6625(e)(3), and effective 10/19/2013, the Permittee must operate and maintain EU #5 and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.			
	4. In accordance with 40 CFR 63.6625(f), and effective 10/19/2013, EU #5 shall be equipped with a non-resettable hour meter.			
	5. In accordance with 40 CFR 63.6625(h), and effective 10/19/2013, the Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.			
	6. In accordance with 40 CFR 63.6625(j), and effective 10/19/2013, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d to 40 CFR Part 63 Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.			

	Table 4b
EU#	Monitoring And Testing Requirements
6	<ul> <li>7. In accordance with 40 CFR 63.6625(e)(3), and effective 5/3/2013, the Permittee must operate and maintain EU #6 and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</li> <li>8. In accordance with 40 CFR 63.6625(f), and effective 5/3/2013, EU #6 shall be equipped with a non-resettable hour meter.</li> </ul>
	9. In accordance with 40 CFR 63.6625(h), and effective 5/3/2013, the Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
	10. In accordance with 40 CFR 63.6625(i), and effective 5/3/2013, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d to 40 CFR Part 63 Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
Facility -wide	11. In accordance with 310 CMR 7.13 <u>Stack Testing</u> conduct stack testing, upon written request of MassDEP, for any air contaminant for which MassDEP has determined testing is necessary, to ascertain compliance with MassDEP's regulations or design approval provisos. All such testing shall be conducted in accordance with 310 CMR 7.13 (1) and (2), and in accordance with the applicable procedures specified in 40 CFR 60 Appendix A or other method if approved by MassDEP and USEPA.
	12. The Permittee shall monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	13. In accordance with 310 CMR 7.71(1) and Appendix C(9) establish and maintain data systems or record keeping practices (e.g. fuel use records, SF6 usage documentation, Continuous Emissions Monitoring System) for greenhouse gas emissions to ensure compliance with the reporting provisions of M.G.L. c. 21N, the Climate Protection and Green Economy Act, St. 2008, c. 298, § 6. (State only requirement)

Table 4 Notes:

EU# = Emission Unit Number CFR = Code of Federal Regulations

USEPA = The United States Environmental Protection Agency

ISO = International Organization for Standardization

	Table 5a
EU#	Recordkeeping Requirements
1 3	1. The Permittee shall keep records to demonstrate compliance with Table 4, Condition 1 of this Permit.
	2. In accordance with MassDEP Approval No. 1-X-91-006, the Permittee shall maintain a copy of said Approval in an accessible location of the facility's control room.
1 3 4	3. In accordance with MassDEP Approval No. # 1-O-06-039, the Permittee shall maintain records that include the hours that the turbines are operated at extreme (below 0°F) temperature conditions and the resulting emissions from this operation.
4	<ul> <li>4. In accordance with MassDEP Approval No. 1-P-99-027, keep the following operating and maintenance records for the facility on-site: <ul> <li>a. Records of the hours of operation of the unit including start-ups and shutdowns;</li> <li>b. Records of all maintenance performed on the Centaur-50 turbine;</li> <li>c. The quantity of natural gas combusted within the Centaur-50 turbine during each calendar month;</li> <li>d. Emission factors for NOx, CO, and VOCs as developed from appropriate stack test data, an emission factor for SO<sub>2</sub> based on fuel sulfur content, and an appropriate emission factor for PM based on the most recent revision of EPA's Compilation of Air Pollutant Emission Factors - Volume I: Stationary Point and Area Sources;</li> <li>e. The actual emissions of NOx, CO, SO<sub>2</sub>, PM, and VOCs during each calendar month and the previous rolling 12 calendar month period.</li> </ul> </li> </ul>
5	<ul> <li>5. In accordance with 40 CFR 63.6655(a),(d), (e) and (f) and effective 10/19/2013, the Permittee shall maintain comprehensive and accurate records of:</li> <li>a. a copy of each notification and report that you submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).</li> <li>b. the occurrence and duration of each malfunction of operation (i.e process equipment) or the air pollution</li> </ul>
	control and monitoring equipment.  c. performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
	d. all required maintenance performed on the air pollution control and monitoring equipment.
	e. actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
	f. the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
	g. the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.
	h. the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for periods of demand response operation for an Energy Emergency Alert Level 2, periods of a deviation of voltage or frequency of 5% or greater below standard voltage or frequency, and non-emergency periods as part of a financial arrangement with another entity, the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

	Table 5b
EU#	Recordkeeping Requirements
6	6. In accordance with 40 CFR 63.6655(a),(d), (e) and (f) and effective 5/3/2013, the Permittee shall maintain comprehensive and accurate records of:
	a. a copy of each notification and report that you submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
	b. the occurrence and duration of each malfunction of operation (i.e process equipment) or the air pollution control and monitoring equipment.
	c. performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
	d. all required maintenance performed on the air pollution control and monitoring equipment.
	e. actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
	f. the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
	g. the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.
	h. the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for periods of demand response operation for an Energy Emergency Alert Level 2, periods of a deviation of voltage or frequency of 5% or greater below standard voltage or frequency, and non-emergency periods as part of a financial arrangement with another entity, the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
	7. In accordance with 310 CMR 7.00 Appendix C(10)(b), record the certification from the fuel supplier for each shipment of #2 fuel oil to be used which shall include the following information:  a. The name of the oil supplier;  b. Percent sulfur content (by weight); and
	c. The location where the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility or other location. As an alternative, MMWEC may elect to analyze the oil immediately after the fuel storage tank is filled and before any oil is combusted for each new shipment according to methods approved by the MassDEP. These records shall be maintained on-site.
Facility -wide	8. In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all monitoring data and supporting information, including all stack test results and all ambient air quality modeling results, on-site for a period of at least five years from the date of the monitoring sample, measurement, report or initial operating permit application.
	9. In accordance with 310 CMR 7.12(3)(b), maintain copies of Source Registration and other information supplied to the Department to comply with 310 CMR 7.12, which shall be retained by the facility owner or operator for five years from the date of submittal.
	10.In accordance with 310 CMR 7.71 (6) b. and c. retain at the facility for five years and make available to the Department upon request copies of the documentation of the methodology and data used to quantify emissions. (State only requirement)

# Tennessee Gas Pipeline Co., LLC Appl. # WE-13-020; Trans # X255557 Page 15 of 33

#### Air Quality Operating Permit Administrative Amendment Appl. #WE-18-009; Trans. #X280659

CFR = Code of Federal Regulations

USEPA = The United States Environmental Protection Agency

NOx = Nitrogen Oxides

CO = Carbon Monoxide

 $SO_2 = Sulfur Dioxide$ 

PM = Particulate Matter

VOCs = volatile organic compounds RICE= Reciprocating Internal Combustion Engine

Table 6a			
EU#	Reporting Requirements <sup>(1)</sup>		
3	1. In accordance with MassDEP Approval No. 1-X-91-006, notify MassDEP in writing within 15 days if the sulfur content documented per 40 CFR 60.334 (h)(3) indicates noncompliance with the SO <sub>2</sub> emission limitation expressed in Table 3 of this Permit.		
4	2. In accordance with MassDEP Approval No. 1-P-99-027, notify MassDEP in writing 90 days prior to any planned or routine construction, substantial reconstruction, alteration or replacement of the Centaur-50 turbine, including, but not limited to, any service life overhaul.		
	3. In accordance with MassDEP Approval No. 1-P-99-027, if any construction, substantial reconstruction, alteration, or replacement of the Centaur-50 turbine is needed due to malfunction, upset conditions, or premature degradation, notify MassDEP by phone or fax within 24 hours after the occurrence of said conditions. The Permittee shall submit a detailed written description to MassDEP of the actions taken within five days after completing such actions.		
	4. In accordance with MassDEP Approval No.1-P-99-027, submit any changes to the Standard Operating and Maintenance Procedures ("SOMP") for the Centaur-50 turbine to MassDEP within seven days after commencing such changes.		
5	5. In accordance with 40 CFR 63.6603 and 63.6640, Footnote 2 of Table 2d, and effective 10/19/2013, if an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice as soon as practicable and the Federal, State or local law under which the risk was deemed unacceptable.		
	6. In accordance with 40 CFR 63.6640(e) and effective 10/19/2013, the Permittee shall report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.		

	Table 6b			
EU#	Reporting Requirements (1)			
5	7. In accordance with 40 CFR 63.6650(h) and effective 10/19/2013, if you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in 40 CFR 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section and as specified below.			
	a. The report must contain the following information:			
	1) Company name and address where the engine is located.			
	2) Date of the report and beginning and ending dates of the reporting period.			
	3) Engine site rating and model year.			
	4) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.			
	5) Hours operated for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(2)(ii) and (iii).			
	6) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii).			
	7) Hours spent for operation for the purpose specified in 40 CFR 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.			
	8) If there were no deviations from the fuel requirements in 40 CFR 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.			
	9) If there were deviations from the fuel requirements in 40 CFR 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.			
	b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.			
	c.The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ( <a href="https://www.epa.gov/cdx">www.epa.gov/cdx</a> ). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.			
6	8. In accordance with 40 CFR 63.6603 and 63.6640, Footnote 2 of Table 2d, and effective 5/3/2013, if an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice as soon as practicable and the Federal, State or local law under which the risk was deemed unacceptable.			
	9. In accordance with 40 CFR 63.6640(e) and effective 5/3/2013, the Permittee shall report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.			

	Table 6c			
EU#	Reporting Requirements <sup>(1)</sup>			
Facility -wide	10. Submit a Source Registration/Emission Statement Form to MassDEP on an annual basis as required by 310 CMR 7.12.			
	11. In accordance with 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with MassDEP's regulations or design approval provisos shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed to pretest protocol.			
	12. In accordance with 310 CMR 7.00: Appendix C(10)(c) and as required by General Condition 10 of this Permit, the Permittee shall report a summary of all monitoring data and related supporting information to MassDEP at least every six months (January 30 and July 30 of each calendar year).			
	13. Submit Annual Compliance report to MassDEP and EPA by January 30 of each year and as required by General Condition 10 of this Permit.			
	14. In accordance with 310 CMR 7.00 Appendix C(10)(a), submit to MassDEP any record relevant to this operating permit or to the emissions of any air contaminant from the facility within 30 days of the request by MassDEP.			
	15. In accordance with 310 CMR 7.00 Appendix C(10)(f), the Permittee shall report to MassDEP's Regional Bureau of Waste Prevention all instances of deviations from permit requirements. (See Provision 25 in "GENERAL CONDITIONS FOR OPERATING PERMIT").			
	16. In accordance with 310 CMR 7.71(5), by April 15 <sup>th</sup> , 2010 and April 15 <sup>th</sup> of each year thereafter report emissions of greenhouse gases from stationary emissions sources including, but not limited to, emissions from factory stacks, manufacturing processes and vents, fugitive emissions, and other process emissions; and owned or leased motor vehicles when stationary source greenhouse gas emissions are greater than 5,000 short tons CO2e. Report greenhouse gas emissions electronically in a format that can be accommodated by the registry. (State only requirement)			
	17. In accordance with 310 CMR 7.71(6), certify greenhouse gas emissions reports using a form provided by the Department or the registry. (State only requirement)			
	18. In accordance with 310 CMR 7.71(7), by December 31 <sup>st</sup> of the applicable year submit to the Department documentation of triennial verification of the greenhouse gas emissions report. (State only requirement)			

#### Table 6 Notes:

EU# = Emission Unit Number CO2e = Carbon Dioxide Equivalent CFR = Code of Federal Regulations

#### Table 6 Foot Notes:

(1) The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. All other reports are to be submitted to the Western Regional Office unless specified otherwise.

# C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et seq. and 310 CMR 8.00 et. seq., when subject.

### D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee is currently not subject to the following requirements:

Table 7			
Regulation	Reason		
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	The facility employs less than 250 people.		
40 CFR 64 Compliance Assurance Monitoring (CAM)	Facility does not satisfy all applicable criteria.		

#### 5. SPECIAL TERMS AND CONDITIONS

and maintenance records, and inspection of the source.

The Permittee is subject to and shall comply with the following special terms and conditions that are not

#### contained in Table 3, 4, 5, and 6: Table 8a. **Special Terms and Conditions** 1. In accordance with MassDEP Approval No. 1-O-06-039, comply with the following conditions when operating under EU#1 extreme conditions: EU#3 EU#4 Emission Limits for EU # 1, EU # 3 and EU # 4 Under Extreme Conditions<sup>1</sup> (pounds per hour per engine) VOC **NOx** CO EU 1 Centaur H 20.28 26.65 6.52 25.00 EU 3 Centaur T-4500 19.02 6.11 EU 4 Centaur 50 10.18 14.76 4.74 Note 1: Extreme conditions are defined as ambient temperature below 0°F (-18°C). 2. EU #1, 3 and 4 are subject to the Standards of Performance for Stationary Gas Turbines, 40 CFR Part 60 Subpart GG and shall comply with all applicable requirements. EU#5 3. In accordance with 40 CFR 63.6595(a)(1), the Permittee shall comply with the applicable requirements of 40 CFR Subpart ZZZZ by no later than October 19, 2013. 4. In accordance with 40 CFR 63.6603(a), Table 2d, and effective 10/19/2013, the Permittee shall: a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i)or (j) in order to extend the specified oil change requirement in Table 2d of 40 CFR Part 63 Subpart ZZZZ. 5. In accordance with 40 CFR 63.6605(a) and (b), and effective 10/19/2013, a. The Permittee shall be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times. b. At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation

- 6. In accordance with 40 CFR 63.6640(a), Table 6, and effective 10/19/2013, the Permittee shall continuously comply with the work or management practices as required by the following:
  - a. Operate and maintain EU#5 according to the manufacturer's emission-related operation and maintenance instructions;
  - b. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

		Table 8b.
		Special Terms and Conditions
EU#5	7.	In accordance with 40 CFR 63.6640(f)(1) and (2), and effective 10/19/2013, operate the engine according to the conditions described in 40 CFR 63.6640(f)(1) and (2). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing and emergency demand response, as described in 40 CFR 63.6640(f)(1) and (2), is prohibited. If you do not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) and (2), the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
EU#6	8.	In accordance with 40 CFR 63.6595(a)(1), the Permittee shall comply with the applicable requirements of 40 CFR Subpart ZZZZ by no later than May 3, 2013.
	9.	In accordance with 40 CFR 63.6603(a), Table 2d, and effective 5/3/2013, the Permittee shall: a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
		b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
		c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
		Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i)or (j) in order to extend the specified oil change requirement in Table 2d of 40 CFR Part 63 Subpart ZZZZ.
	10.	In accordance with 40 CFR 63.6605(a) and (b), and effective 5/3/2013, a. The Permittee shall be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times. b. At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
	11	In accordance with 40 CFR 63.6640(a), Table 6, and effective 5/3/2013, the Permittee shall continuously comply with the work or management practices as required by the following :
		<ul> <li>Operate and maintain EU#6 according to the manufacturer's emission-related operation and maintenance instructions; or</li> </ul>
		b. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
	12	In accordance with 40 CFR 63.6640(f)(1) and (2), and effective 5/3/2013, operate the engine according to the conditions described in 40 CFR 63.6640(f)(1) and (2). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation of the emergency operation, maintenance and testing and emergency demand

response, as described in 40 CFR 63.6640(f)(1) and (2), is prohibited. If you do not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) and (2), the engine will not be considered an emergency engine under this

subpart and will need to meet all requirements for non-emergency engines.

Table 8c.					
	Special Terms and Conditions				
EU#5	13. EU #5 and 6 is subject to the requirements of 40 CFR 63.1-10,12-15, Subpart A, "General Provisions" [as indicated				
EU#6	in Table"8" to Subpart ZZZZ of 40 CFR 63]. Compliance with all applicable provisions therein is required.				
Facility- wide	14. In accordance with 310 CMR 7.01(1), should any nuisance condition(s) occur as a result of the operation, take appropriate steps immediately to abate said nuisance condition(s). [State Only]				
	15. In accordance with 310 CMR 7.09, shall not cause or allow emissions of odor or dust that cause or contribute to a condition of air pollution. [State Only]				

*Table 8 Notes:* 

EU# = Emission Unit Number

RICE = Reciprocating Internal Combustion Engine

## 6. ALTERNATIVE OPERATING SCENARIOS

The Permittee did not request alternative operating scenarios in its Operating Permit application.

# 7. <u>EMISSIONS TRADING</u>

### A. INTRA-FACILITY EMISSION TRADING

The Permittee did not request intra-facility emissions trading in its Operating Permit application.

#### B. INTER-FACILITY EMISSION TRADING

The Permittee did not request inter-facility emissions trading in its Operating Permit application.

## 8. COMPLIANCE SCHEDULE

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the Permit term.

#### GENERAL CONDITIONS FOR OPERATING PERMIT

## 9. <u>FEES</u>

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

### 10. COMPLIANCE CERTIFICATION

All documents submitted to the MassDEP shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the MassDEP's web site, <a href="http://www.mass.gov/eea/agencies/massdep/air/approvals/operating-permits-forms.html#2">http://www.mass.gov/eea/agencies/massdep/air/approvals/operating-permits-forms.html#2</a>

#### A. Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this Operating Permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- 4) any additional information required by the MassDEP to determine the compliance status of the source.

#### B. Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this Permit. The report shall be postmarked or delivered by January 30 and July 30 to the MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- 4) whether there were any deviations during the reporting period;
- 5) if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- 6) whether deviations in the reporting period were previously reported;
- 7) if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- 8) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- 9) any additional information required by the MassDEP to determine the compliance status of the source.

## 11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for Permit termination or revocation, or for denial of an Operating Permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

# 12. PERMIT SHIELD

A. This facility has a permit shield provided that it operates in compliance with the terms and conditions of this Permit. Compliance with the terms and conditions of this Permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this Permit.

Where there is a conflict between the terms and conditions of this Permit and any earlier approval or Permit, the terms and conditions of this Permit control.

B. The MassDEP has determined that the Permittee is not currently subject to the requirements listed

in Section 4, Table 7.

- C. Nothing in this Permit shall alter or affect the following:
  - 1) the liability of the source for any violation of applicable requirements prior to or at the time of Permit issuance.
  - 2) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
  - 3) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

## 13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

All other terms and conditions contained in this Permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the MassDEP, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

## 14. PERMIT TERM

This Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date 5 years after issuance of this Permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this Permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

## 15. PERMIT RENEWAL

Upon the MassDEP's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the MassDEP on the renewal application.

In the event the MassDEP has not taken final action on the Operating Permit renewal application prior to this Permit's expiration date, this Permit shall remain in effect until the MassDEP takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

### 16. REOPENING FOR CAUSE

This Permit may be modified, revoked, reopened, and reissued, or terminated for cause by the MassDEP and/or EPA. The responsible official of the facility may request that the MassDEP terminate the facility's Operating Permit for cause. The MassDEP will reopen and amend this Permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an Operating Permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any Operating Permit condition.

#### 17. DUTY TO PROVIDE INFORMATION

Upon the MassDEP's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the MassDEP copies of records that the Permittee is required to retain by this Permit.

#### 18. DUTY TO SUPPLEMENT

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

#### 19. TRANSFER OF OWNERSHIP OR OPERATION

This Permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the Permit is necessary and provided that a written agreement containing a specific date for transfer of Permit responsibility, coverage and liability between current and new Permittee, has been submitted to the MassDEP.

## 20. PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, or any exclusive privilege.

## 21. INSPECTION AND ENTRY

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the MassDEP, and EPA to perform the following:

- A. enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;
- B. have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- C. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- D. Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the Operating Permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

## 22. PERMIT AVAILABILITY

The Permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the Operating Permit, including any amendments or attachments thereto, upon request by the MassDEP or EPA.

#### 23. SEVERABILITY CLAUSE

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

## 24. <u>EMERGENCY CONDITIONS</u>

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this Permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. the permitted facility was at the time being properly operated;

<sup>&</sup>lt;sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>&</sup>lt;sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

- C. during the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
- D. the Permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

## 25. PERMIT DEVIATION

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this Permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6. of this Operating Permit shall supersede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone, fax or electronic mail (e-mail), within three (3) days of discovery of such deviation:

- A. Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- B. Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the Permit or approval as surrogate for an emission limit.
- C. Exceedances of Permit operational limitations directly correlated to excess emissions.
- D. Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- E. Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the MassDEP Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP's web site,

http://www.mass.gov/dep/air/approvals/aqforms.htm#op.

This report shall include the deviation, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone, fax or electronic mail (e-mail) within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the

aforementioned Semi-Annual Monitoring Summary and Certification.

#### 26. OPERATIONAL FLEXIBILITY

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the Permit and in compliance with all applicable requirements provided the Permittee gives the EPA and the MassDEP written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(h) and (i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's Permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

## 27. MODIFICATIONS

- A. Administrative Amendments The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- B. Minor Modifications The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2.,provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- C. Significant Modifications The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- D. No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this Operating Permit. A revision to the Permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an Operating Permit revision under any other applicable requirement.

## 28. OZONE DEPLETING SUBSTANCES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

- A. The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - 1) All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
  - 2) The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.

- 3) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
- 4) No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
- B. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
  - 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
  - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
  - 3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - 4) Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
  - 5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
  - 6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- C. If the Permittee manufactures, transforms, imports or exports a class I or class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part82, Subpart A, "Production and Consumption Controls".
- D. If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners". The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- E. The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

## 29. PREVENTION OF ACCIDENTAL RELEASES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Tennessee Gas Pipeline Co., LLC Appl. # WE-13-020; Trans # X255557 Page 32 of 33 Air Quality Operating Permit Administrative Amendment Appl. #WE-18-009; Trans. #X280659

Your facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

## APPEAL CONDITIONS FOR OPERATING PERMIT

This Permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this Permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the MassDEP's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a Permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts Department of Environmental Protection P.O. Box 4062 Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.